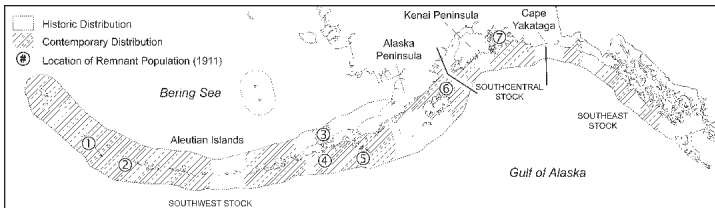




U. S. Fish & Wildlife Service

Wildlife Biologue

Northern Sea Otter (*Enhydra lutris*)



Description

Sea otters are a member of the weasel family (Mustelidae) and live in the near-shore waters along the North Pacific ocean. Sea otters are the smallest marine mammal and are most closely related to river otters. Sea otters are suited to their marine environment by adaptations of dentition, skeletal structure, and pelage. Sea otter dentition is adapted for crushing hard-shelled invertebrates such as clams, urchins, and crabs. The skeletal structure of the sea otter is loosely articulated and lacks a clavicle which allows for increased flexibility in swimming and grooming. The forelimbs are used primarily for grooming and foraging rather than swimming. The hind feet are flattened and flipper-like with an extension of

the fifth digit which enables the animal to more efficiently swim on its back on the surface of the water. Sea otters do not have a blubber layer as other marine mammals do, instead they depend upon a dense, water-resistant fur to provide insulation against cold. Sea otter fur is very dense and has a greater number of hair follicles per inch than any other mammal. Adult sea otters can reach lengths of up to 6 feet (1.8 m) but average about 4.5 feet (1.4 m). Adult male otters weigh from 70 - 90 pounds (32-41 kg) with some males reaching up to 100 pounds (46 kg). Adult female otters average 40 - 60 pounds (18-27 kg).

Life History

Sea otters' average life span is approximately 15 - 20 years. Female sea otters do not begin to breed until age 2 - 5 years and may breed annually up until age 20. Males become sexually mature at ages 4 - 6 years but may not hold breeding territories until several years later.

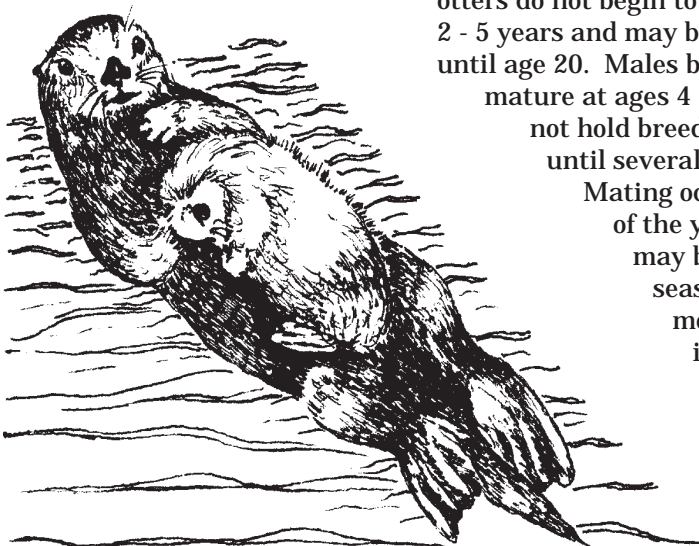
Mating occurs at all times of the year, and young may be born in any season. In Alaska, most pups are born in late spring.

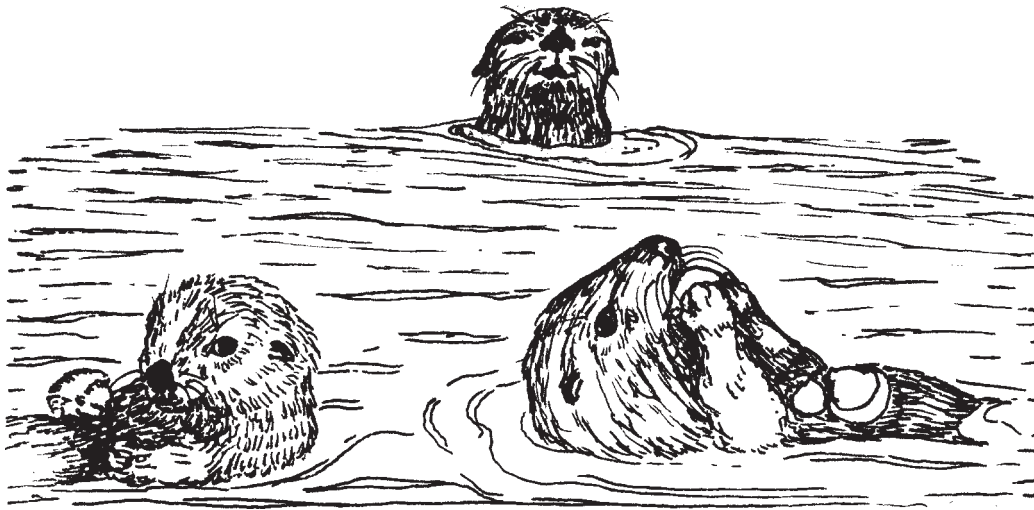


Sea otters generally have a single pup during each breeding cycle and the gestation period can be highly variable due to delayed implantation of the fertilized egg. A pup will weigh from 3 to 5 pounds (1.4 - 2.3 kg) at birth and stay with its mother from 3 - 6 months.

Range and Population Levels

It is estimated that 90% of the world's population of sea otters are found in the coastal waters of Alaska. Historically, sea otters occurred in near shore waters around the North Pacific rim from Hokkaido, Japan through the marine coastal areas of the Russian Far East and the Pacific coastal areas in the United States as far south as Baja California. The world-wide sea otter population was drastically reduced to just a few hundred animals between 1742 - 1911, due to commercial harvest by the Russian and Russian/American fur trades. In Alaska today, the population is believed to number 100,000 - 150,00 animals.





Food Habits

Sea otters dive to gather food from the ocean floor in relatively shallow water in areas with both rocky substrates and soft bottom sediments. A loose pouch of skin at the axilla (arm pit) of each forelimb is used to store and transport food to the surface. Sea otters eat a wide variety of benthic invertebrates including: clams, crabs, sea urchins, snails, octopus, and occasionally fish and sea birds. Diving depth of sea otters is highly variable and ranges from 5 - 250 feet (2 - 75 m) depending on the prey species. Large food items are cracked by the flattened molars or pounded open with a rock and eaten individually while the sea otter floats on it's back. Small prey items are often consumed whole. Foraging dives average 1-1½ minutes but sea otters are known to remain under water for up to 4 minutes at a time.

Sea otters compensate for having a small body size and no blubber layer by having an increased metabolism which helps them keep warm in the cold water. Sea otters in captivity will consume up to 25% of their body weight per day.

Management and Protection

In the United States, the Northern sea otter is protected from hunting and harassment by the Marine Mammal Protection Act of 1972 (Act). The U.S. Fish and Wildlife Service is the federal agency responsible for maintaining healthy populations of sea otters. In Alaska, biologists from the Fish and Wildlife Service and the Alaska Science Center, U.S. Geological Survey, monitor the population health and status. The primary threats to

the sea otter are generally human-related, and include: competition for shell fish, mariculture, oil and gas transport, logging activities in coastal areas, and commercial fishing. Coastal Alaska Natives are allowed to harvest sea otters for subsistence and handicraft purposes under the Act. The Fish and Wildlife Service has developed agreements with the Alaska Sea Otter Commission to co-manage the subsistence harvest of sea otters.

